

ELECTRONIC PAPER DISPLAYS

Xerox Corporation & Palo Alto Research Center Incorporated

Initial Bidding Guidance: High 6 Figures

The disclosed portfolio is directed to electronically-addressable display mediums that approximate paper in form and function. This portfolio offers improved electronic reusable paper display technologies, including novel electrophoretic displays and various liquid compositions and marking materials for use therein. These inventions enable new products that offer a wider viewing angle than traditional backlit displays and an improved image quality and resolution, for a better reading experience.

Value Proposition: This portfolio discloses novel techniques and materials for construction of, and methods of operation of, electronic paper display devices. The disclosed materials, methods, and devices may employ Gyricon, electrophoretic, electrowetting, or other electronic paper technologies. The portfolio discloses techniques for producing an electric reusable paper sheet to implement an electronic paper display with grey scales, highlight color, additive full color, or custom colors using only simple bichromal elements.

Also disclosed are: novel fluid compositions for use in electrophoretic display devices that have a plurality of individual reservoirs; the preparation and use of microencapsulated aspect elements, having both an electrostatic layer and a magnetic layer that can be addressed to form visible images by the application of external electric fields and external magnetic fields; marking particles that contain a spiropyran material; methods for measuring the parameters of an electrophoretic ink representative of operational characteristics of the ink in a display device; and methods for measuring the operational effectiveness of an electrophoretic ink display device.

Forward Citing Companies: 3M, Carl Zeiss, E Ink Corporation, Eastman Kodak, HP, Konica, Nokia, Samsung

Priority Date: 01-16-2002

Representative Claim: US 6,577,433 – Claim #1

An electrophoretic display device comprising a multiplicity of individual reservoirs, each containing an electrophoretic display fluid, located between two conductive film substrates, at least one of which is transparent, wherein the electrophoretic display fluid comprises at least two sets of particles dispersed in a transparent liquid system and one or more charge directors dissolved or dispersed in the liquid system or physically embedded on the surface of the particles or chemically bonded on the surface of the surface of the particles, the at least two sets of particles exhibiting different, contrasting color and different charging properties from each other.

Contact:

For more information on the assets available for sale in this portfolio, contact Paul Greco.

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The information that has been provided is believed to be complete to the extent provided and described, but ICAP Patent Brokerage makes no warranty that it is complete for all purposes or any specific purpose, industry, or business. Each party considering the portfolio is cautioned to make its own analysis regarding the utility and coverage of the portfolio, and to seek independent assistance in doing so.

TECHNOLOGY

ELECTRONIC PAPER DISPLAYS

NOVELTY

METHODS AND ADVANCED MATERIALS FOR CONSTRUCTING AND OPERATING ELECTRONIC PAPER DISPLAYS

IMPORTANCE

STRATEGIC PORTFOLIO FOR COMPANIES PROVIDING ELECTRONICALLY-ADDRESSABLE DISPLAY DEVICES SUCH AS ELECTRONIC PAPER DISPLAYS

NUMBER OF ASSETS

35

PATENTS (35)

US 6,358,655
US 6,365,312
US 6,456,272
US 6,458,165
US 6,498,674
US 6,504,525
US 6,517,618
US 6,525,136
US 6,529,313
US 6,545,671
US 6,549,327
US 6,574,034
US 6,577,433
US 6,652,959
US 6,847,347
US 6,894,677
US 7,123,238
US 7,193,769
US 7,924,412
DE 60218081.3
DE 60218084.8
DE 60226806.0
EP 1260560
EP 1260561
EP 1260872
EP 1262817
FR 1260560
FR 1260561
FR 1260872
GB 1260560
GB 1260561
GB 1260872
JP 3987762
JP 3987763
JP 4126194